27   else if $(\text{preferred}(n) > \max\{t_x\} - t_n)$ then

28          $\text{preferred}(n) = \max\{t_x\} - t_n$

29   end if.

REMARKS

Claims 1-4 are pending in the application. By this amendment, claim 3 has been rewritten in independent form. Claims 3 and 4 have been characterized in the Office Action of September 11, 2001 as containing allowable subject matter.

CLAIM REJECTION UNDER 35 U.S.C. §112

In the Office Action, claims 3 and 4 had been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Particularly, the Examiner views the recitation of "the label Px" and "the bounds" as lacking clear antecedent basis.

To advance prosecution, claim 3 is amended to replace the recitations of "the label Px" and "the bounds" with --a label Px-- and --bounds--, respectively. No change in meaning is intended. Accordingly, Applicants respectfully submit that the rejection of claims 3 and 4 under 35 U.S.C. §112, second paragraph has been overcome, and, hence, solicit withdrawal thereof.

CLAIM REJECTION UNDER 35 U.S.C. §102

In the Office Action, claims 1 and 2 had been rejected under 35 U.S.C. §102(b) as being anticipated by Kim, et al. (U. S. Patent No. 5,659,790). This rejection is respectfully traversed.

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As recited in claim 1, the present invention provides:

> "A method of progressive time stamp resolution in a multimedia presentation comprising the steps of:
>
> supplying a player of a multimedia presentation with information comprising <u>two labels</u>, one for a multimedia object's start time and one for the multimedia object's end time relative to other multimedia object start and stop times, and <u>three durations</u>, a minimum duration, a maximum duration and a preferred duration for each multimedia object prior to starting playback of the multimedia object; and
>
> <u>resolving</u> the durations of multimedia objects using said information <u>based on actual multimedia object durations and arrival of information of multimedia objects to be played</u>."
> (emphasis added)

In the statement of the rejection, the Examiner asserted that the claimed feature of resolving the durations of multimedia objects" is described in column 4, lines 1-67 of Kim, et al. The Examiner particularly paraphrases from column 4, lines 57-59 of the reference (Office Action, page 4, lines 3-4). The Kim patent states, referring to "Time" (line 56), "It often provides the basic measure for multimedia objects. Time also provides a reference to interrelate various multimedia objects." (Kim, et al., column 4, lines 57-59). This assertion is respectfully disagreed with.

Column 4 of Kim, et al. may be understood in the context of Kim, et al. generally, which "relates to composing and playing multimedia documents with variable play time on a computer system and, more particularly, to composing and playing multimedia episodes in multimedia

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documents so that they are present correctly in time when the document play time is varied." (column 1, lines 6-12).

Column 4 of Kim, et al. is directed to composing a "multimedia story" by selecting among a list of episodes, e.g., video, text and audio (Kim, et al., column 4, lines 9-10). Each episode is associated with a triplet of lengths (i.e., minimum, maximum and optimum lengths) which is manually set by a user by using the user interactive screen shown in Fig. 2 of Kim, et al. (Kim, et al., column 4, lines 15-19). Once each episode's triplet of lengths is set by the user, the episodes are then scheduled together in a way that defines a story by the user (Kim, et al., column 4, line 66 to column 5, line 1).

Column 4 of Kim, et al. is silent about the (a) actual multimedia object duration and (b) arrival of information of multimedia objects to be played to resolve the durations of the multimedia objects. That is, Kim, et al. lacks a teaching of lines 9-11 of claim 1. In fact, according to Kim, et al., all of the episodes are _present_ for the user's immediate manipulation, and, therefore, in Kim, et al. the actual multimedia object duration and arrival of information of multimedia objects to be played have _no relevance_ to composing a multimedia story by scheduling the episodes.

Also, according to claim 1, the durations of the multimedia objects are resolved only after (i) "arrival of information of multimedia objects to be displayed" (claim 1, lines 10-11) and (ii) "information based on actual multimedia object duration" are readily available (claim 1, line 9-10). In this regard, Kim, et al. does not teach an actual duration of a multimedia object being different from its initial duration due to any kind of delay (e.g., network/playback delay). Kim, et al. does not teach or suggest "resolving the duration of multimedia objects using said information
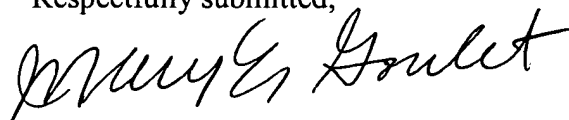
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based on actual multimedia object duration and arrival of information of multimedia objects to be displayed" (claim 1, lines 9-11).

In view of the above, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) based on Kim, et al. are respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies and credit any overpayment of fees to Deposit Account No. 50-0510.

Respectfully submitted,

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APPENDIX

The "marked-up" version of the amended claim in this Amendment is as follows:

1   3.   (Amended)   A [The] method of progressive time stamp resolution in a

2   multimedia presentation [recited in claim 1], comprising the steps of:

3   supplying a player of a multimedia presentation with information comprising two labels,

4   one for a multimedia object's start time and one for the multimedia object's end time relative to

5   other multimedia object start and stop times, and three durations, a minimum duration, a

6   maximum duration and a preferred duration for each multimedia object prior to starting playback

7   of the multimedia object; and

8   resolving the durations of multimedia objects using said information based on actual

9   multimedia object durations and arrival of information of multimedia objects to be played,

10   wherein the step of resolving comprises the steps of:

11   collecting all the dependency relations for [the] a label Px, by taking all objects n that

12   have Px as the label for their end time:

13    $$t_n + \text{minimum}(n) \leq t_x \leq t_n + \text{maximum}(n) \quad n = 1, \ldots, N$$

14   where t_n is the start time of object n, and N is the number of objects;

15   using the N relations to calculate the tightest bounds on t_x:

16    $$\min\{t_x\} \leq \{t_x\} \leq \max\{t_x\}$$

17   with

18    $$\min\{t_x\} = \max\{t_x + \text{minimum}(n)\} \quad n = 1, \ldots, N$$

19    $$\max\{t_x\} = \min\{t_x + \text{maximum}(n)\} \quad n = 1, \ldots, N;$$

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20   recalculating [the] bounds on the durations of each object n, by using:

21      $$duration(n) = t_x - t_n$$

22   to get

23      $$\min\{t_x\} - t_n \leq duration(n) \leq \max\{t_n\} - t_n \quad n = 1, \ldots, N; \text{ and}$$

24   recalculating the preferred duration of each object n according to the process:

25   if $(preferred(n) < \min\{t_x\} - t_n)$ then

26      $preferred(n) = \min\{t_x\} - t_n$

27   else if $(preferred(n) > \max\{t_x\} - t_n)$ then

28      $preferred(n) = \max\{t_x\} - t_n$

29   end if.

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